

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012067**Date Inspected:** 18-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai**CWI Name:** ZPMC and ABF**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Wai Pau, was present during the times noted above for observations relative to the work being performed.

**Bay #11**

East tower lift #5:- Caltrans QA Inspector observed two welding operators performed SAW process on exterior corner longitudinal seam welds that connected skin plate C to D of east tower lift #5. The longitudinal seam weld number is #ESA-TL5-2B/F-16B/39B. The SAW welding was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

West tower lift #4:- Caltrans QA Inspector observed three welders performed SMAW and FCAW repair process on the interior and exterior corner longitudinal seam welds that connected skin plate B to C and C to D. All the repair weld areas have been pre heat prior welding. The repair welding located at elevation 135m, 119m and 123m. The SMAW and FCAW repair processes were monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

West tower lift #4:- Caltrans QA Inspector observed seven welders performed FCAW process on fit lug plate that connected skin plate E to diaphragms. The fit lug located at elevation 116m ~143m. All the fit lug weld areas have been pre heat prior welding. The FCAW repair processes was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

Tower connection plate: - Caltrans QA Inspector observed three ZPMC welders performed FCAW process on CJP weld of tower connection plates. The CJP weld and plate ID are ND1-SA4-68-127M-1-1B, ND1-SA4-68-127M-2-1B, ND1-SA4-68-127M-1-3B and ED1-SA4-68-1311M-7-1B. The FCAW process was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

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## WELDING INSPECTION REPORT

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West tower lift #3:- Caltrans QA Inspector observed three ZPMC workers performed drilling process on exterior double plates of the skin plate A for west tower lift #3. The exterior double plates are located at 91m tower strut connection areas. The holes template has been installed and secured by hold devices, the alignment of holes template has accepted by ZPMC and ABF prior drilling hole. Based on Caltrans QA inspector observations, no discrepancies were noted.

Bay #10

North tower lift #5:- Caltrans QA Inspector observed two ZPMC welders in process fit up and SMAW tack welding on skin plate B of north tower lift 5. A numerous temporary tack welds have been welded attach to the skin plate B and skin plate A after the skin plate B has been secured. All the tack weld areas have been pre heat with heating torches. Base on Caltrans observation, no discrepancies were noted.

South tower lift #5:- Caltrans QA Inspector observed two welders performed SMAW process on interior corner longitudinal seam welds that connected skin plate A to B and A to E. The seam weld number is #SSD1-TL5-1B/F-36B/37B. The SMAW welding was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

South tower lift #4:- Caltrans QA Inspector observed three welders performed FCAW repair process on the interior corner longitudinal seam welds that connected skin plate A to E. All the repair weld areas have been pre heat prior welding. The repair welding located at elevation 127m, 131m and 135m. The FCAW repair processes were monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

### CLOSING STATEMENT

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

As notes within report above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest 15000422360 , who represents the Office of Structural Materials for your project.

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| <b>Inspected By:</b> | Pau, Wai          | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Clifford, William | QA Reviewer                 |

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